

WHAT IS CLAIMED IS:

1. A method of securing a first bone fragment to a second bone fragment, comprising the steps of:

forming a bore through the first bone fragment in the direction of the second bone fragment;

advancing a fixation device comprising an elongate body, having a proximal end and a distal end, a helical anchor on the distal end of the elongate body and a proximal anchor, moveably carried by the elongate body, the elongate body and the proximal anchor having complementary retention structures configured to resist proximal movement of the proximal anchor with respect to the elongate body,

rotating the fixation device to engage bone in the second bone fragment; and

using a deployment device to apply a distal force to proximally withdraw the elongate body with respect to the proximal anchor.

2. A method of securing a first bone fragment to a second bone fragment as in Claim 1, wherein the second bone fragment comprises the head of a femur.

3. A method of securing a first bone fragment to a second bone fragment as in Claim 1, wherein the step of rotating the fixation device comprises engaging the proximal anchor of the fixation device with the deployment and rotating the deployment device to rotate the proximal anchor and the distal anchor.

4. A method of securing a first bone fragment to a second bone fragment as in Claim 1, wherein the step of using a deployment device to proximally withdraw the elongate body with respect to the proximal anchor comprises moving the fingers of a hand that is holding the deployment device towards the palm of the hand that is holding the deployment device.

5. A method of securing a first bone fragment to a second bone fragment as in Claim 1, wherein the step of using a deployment device to proximally withdraw the elongate body comprises gripping the elongate body of the fixation device with the deployment device.

6. A method of securing a first bone fragment to a second bone fragment as in Claim 5, wherein the step of gripping the elongate body of the fixation device with the deployment device comprises proximally withdrawing a collet within the deployment device.

7. A method of securing a first bone fragment to a second bone fragment as in Claim 1, further comprising separating the elongate body into a first portion that remains coupled to the proximal anchor and a second portion that is removed from the fixation device.

8. A method of securing a first bone fragment to a second bone fragment as in Claim 7, wherein the step of separating the elongate body comprises rotating the second portion with respect to the first portion.

9. A method of securing a first bone fragment to a second bone fragment as in Claim 7, wherein the step of separating the elongate body comprises cutting the elongate body with the deployment device.

10. A method of securing a first bone fragment to a second bone fragment as in Claim 9, wherein the step of separating the elongate pin comprises heating.

11. A deployment device for use with a bone fixation device, said deployment device comprising:

    a first component comprising a distal end and a proximal end, the distal end of the first component being configured to engage a proximal anchor of the bone fixation device;

    a palm engagement portion coupled to the first component;

    a second component comprising a distal end and a proximal end, the second component being axially moveable with respect to the first component;

    at least one finger engagement portion coupled to the second body and being positioned distally from the palm engagement portion, said finger engagement portion being movable relative to the palm engagement portion;

    a tensioner coupled to said second component and adapted to generally move with said finger engagement portion relative to said first component, said tensioner being configured to proximally withdraw an elongate body of the bone fixation device with respect to the proximal anchor which is carried by the elongate body as the at least one finger engagement portion is moved towards the palm engagement portion.

12. The deployment device of Claim 11, wherein the tensioner is configured to grip the elongate body of the fixation device as the at least one finger engagement portion is axially moved towards the palm engagement portion.

13. The deployment device of Claim 11, wherein said distal end of said first component is configured to rotate the proximal anchor of the fixation device as the deployment device is rotated.

14. The deployment device of Claim 13, wherein the distal end of the first component comprises a distal cap that is removeably attached to a remaining portion of the first component.

15. The deployment device of Claim 11, wherein the deployment device is configured to separate the elongate body into a first portion and a second portion.

16. The deployment device of Claim 15, wherein the deployment device comprises a cauterizing device.

17. The deployment device of Claim 11, wherein said tensioner comprises a collet configured to grip the elongate body of the bone fixation device as the finger engagement portion moves proximally relative to the palm engagement portion.

18. The deployment device of Claim 17, wherein the collet comprises a plurality of flexible fingers having gripping heads.

19. A deployment device for use with a bone fixation device comprising an elongate body with a distal helical anchor and a proximal anchor that is carried by the elongate body, said deployment device comprising:

- an outer component having a proximal end and a distal end;
- an inner component axially moveable within the outer component;
- a first actuator coupled to the outer component;
- a second actuator coupled to the inner body such that the first actuator is axially moveable with respect to the second actuator; and

wherein the distal end of the outer component is configured to engage and rotate the proximal anchor of the bone fixation device and the inner component is removably coupled to the elongate body and configured such that proximal movement of inner component with respect to the outer component proximally withdraws the elongate body with respect to the proximal anchor.

20. The deployment device of Claim 19, wherein the second actuator comprises a finger grip portion.

21. The deployment device of Claim 19, wherein the first actuator comprises a palm engagement portion.

22. The deployment device of Claim 19, wherein the inner component removeably coupled to the elongate pin by threads.

23. The deployment device of Claim 19, wherein the inner component is adapted to grip the elongate body of the fixation device.